

NEW AUSTRALIAN CHALCID-FLIES

(Hymenoptera, Chalcididæ)

By A. A. GIRAULT

(Continued from page 96)

Copidosoma australia, new species.

Female.—Length, 1.60 mm., excluding the ovipositor which is somewhat shorter than the abdomen. Very similar to the description of *compressiventris* Girault but differing as follows: General color black green, the tarsi of the cephalic legs dusky, the pedicel is twice longer than wide at apex, slightly longer than funicle 2 which is plainly twice longer than wide and a little the longest; club 1 subequal to funicle 6. Proximal tarsal joints long. Axillæ very widely separated. Scutellum longitudinally, finely striate, subglabrous at distal third. Propodeum short, with a median carina. Hind tibiæ with two spurs, one very short. Frons broad.

One female, October 24, 1914. From grass in a civic park. Common.

Habitat: Muswellbrook, New South Wales.

Types: In the Queensland Museum, the specimen on a tag with types of *australis*.

Copidosoma australis, new species.

Female.—Differs from *australia* in having the frons moderately narrow, about thrice the diameter of the cephalic ocellus, and the axillæ are joined. In the foregoing species the frons is over six times the diameter of the cephalic ocellus. Also, here, the thorax is distinctly more narrow, the scutellum a little less distinctly striate. A very narrow species.

Two females, October 26, 1914. From grass in a civic park. Common.

Habitat: Muswellbrook, New South Wales.

Types: In the Queensland Museum, the females with type *australia*.

Copidosoma australica, new species.

Female.—Like *australis* but the axillæ are large and narrow,

separated a little, and the scutellum is uniformly densely scaly punctuate. The body is more æneous.

One female with the preceding species. Common.

Habitat: Muswellbrook, New South Wales.

Type: In the Queensland Museum, a female on a tag with a paratype female of *australis*.

Male club solid. The hypopygium covers the ovipositor to tip of abdomen. Head as in *Spalangia* as to shape, the scrobes forming a long triangle.

***Aphycus sanguinithorax* Girault.**

The scape is not much dilated.

***Aphycus coccidiphagus*, new species.**

Female.—Length, 1.10 mm., excluding the ovipositor which is extruded for a length a little over half that of the abdomen. Golden yellow, the wings hyaline, the venation yellow; pronotum broadly mesad and cephalic margin of the axillæ, embrowned. Pedicel stout, slightly longer than wide, longer than any of the funicle joints of which 1–2 are subquadrate, 3–4 each a little wider than long, 5 and 6 still wider, 6 largest. Marginal vein punctiform, as long as the postmarginal, the latter somewhat more than a third the length of the stigmal. Mandibular teeth acute, 3 shortest. Hairless line of fore wing closed caudad, with numerous lines of cilia proximad of it. Club wider than the funicle and three-fourths its length. Cheeks longer than the eyes, the face strangely inflexed, the frons of moderate width. Fore wings densely, finely ciliate. Venation dusky yellow. Caudal wings with about eighteen lines of very fine discal cilia where broadest. Axillæ a little separated. Scape a little compressed.

Six females from a *Rhizococcus* (?) on *Leptospermum*, December 22, 1899 (A. Koebele).

Habitat: Botany Bay, Sydney, New South Wales.

Types: Cat. No. 20673, U. S. Nat. Mus., the specimens on a slide.

***Homalotylus microgaster*, new species.**

Female.—Length, 1.60 mm. Dark metallic blue, the legs

concolorous except the large middle tibial spur and the middle tarsi which together with funicle 6 and the club are white. Fore wings with a broad black stripe across them from the bend of the submarginal vein to apex of the postmarginal and at immediate base fuscous. Tegulae white, black at tip. Venation blackish. Pedicel two-thirds longer than wide at apex or more, the funicle joints short, 1 slightly longer than wide, the others slightly shortening in succession. Club about half the length of the funicle, the latter somewhat shorter than the scape. Head very finely, densely punctulate, with scattered, much larger setigerous pin-punctures. Scutum similarly densely scaly and with dense setigerous pin-punctures. Scutellum and axillae sculptured like the head. Abdomen scaly. Hairless line of fore wing with many lines of cilia proximal of it.

Agrees with the description of *Copidosomyia* but is different in that the marginal vein is punctiform, the postmarginal elongate, slightly shorter than the stigmal. Hind tibiae a little flattened, the spur single. Second two teeth of mandible as if formed by a slight concavity of a truncate tooth (thus three obtuse teeth). Club obliquely truncate from base. Lateral ocelli barely separated from the eyes but nearly twice their diameter from each other. Scape long. Axillae with a very short carina between them. Abdomen smaller than the thorax. Tegulae large. One very short ring-joint. Antennae inserted at the ventral border of the mouth, the scrobes absent.

Four females in the U. S. National Museum. (A. Koebele.)

Habitat: Australia (Eastern).

Type: Cat. No. 20674, U. S. Nat. Mus., two females on tags and a slide with two pairs of antennae, a fore wing, head and hind tibiae. *Cotype*: In the Queensland Museum, a female on a tag.

Differs from *H. obscurus californicus* Girault mainly in having the pedicel longer and the club apparently unjointed. Types compared.

ANAGYROPSIS, new genus

Genotype: *Anagyryus purpureus* Girault.

This name should be substituted for *Anagyryus* at the following places in the Memoirs Queensland Museum, IV, pt. VII: page 80, line 21; page 117, line 8; page 138, line 28; page 147, line 10 from bottom; page 155, line 16 from bottom; page 160, line 8; page 174, line 9.

Heterarthrellus australiensis Howard.

Genotype the same as *Epidinocarsis* Girault. *Dinocarsis* Foerster is no doubt the same and takes precedence.

Dinocarsis abnormis, new species.

Female.—Length, 1.65 mm. Dark metallic purple, the head except antenna, prothorax except cephalic face above and the caudal margin of pronotum and the scutellum except the median line from base to a little beyond the middle, deep orange yellow, also the base of the tegula very narrowly. A lunula laterad in front of the tegula, middle tibiæ except ventrad and rather broadly at tip and the middle tarsi, silvery white; other tarsi brownish. Antennæ wholly purple. Fore wing deeply embrowned from a little distad of the middle of the submarginal vein to apex but with a conspicuous, tolerably narrow, slightly convex, naked cross-stripe from the apex of venation (its proximal edge tipping apex of the stigmal vein). Oblique hairless line closed caudad (some distance distad of the proximal end of the infuscation). Venation black. Post-marginal vein three-fourths the length of the stigmal which is somewhat shorter than the marginal. Funicle 1 nearly twice longer than wide, distinctly shorter than the elongate pedicel, 6 somewhat wider than long. Hind tibial spurs double, very unequal. Cheeks much shorter than the eyes. Face sublenticular, the scrobes distinct, short, not joined dorsad. Frons moderate. Sides of propodeum with a short, silvery pubescence. Sculpture very fine, delicate scaliness. A short carina between the axillæ.

Differs from the genotype in having the foliaceous expansion linear or rectangular, subparallel with the shaft of the scape, not greatly convexed.

From one female, eucalyptus forest, November 1, 1914, Brooklyn, New South Wales (Hawkesbury River).

Type: In the Queensland Museum, the female on a tag, a fore wing and a hind tibia on a slide.

Dinocarsis flavimesopleurum, new species.

Female.—Length, 1.35 mm. Black, the wings hyaline, the venation pale yellowish; head except cheeks and the face below, the middle (about ventral half), and the mesopleurum, orange yellow; pronotum and tegulæ (except outer edge broadly along distal three-fourths), honey yellow. Thorax downy. Face inflexed. Axillæ with a slight carina between them. Legs (except coxæ) and the funicle, dull yellow; rest of antennæ black, the much dilated scape with a white stripe across it near tip and white at the base of its body; pedicel white at tip, slightly shorter than funicle 1 which is two and one-fourth times longer than wide. Marginal and stigmal veins subequal, the postmarginal subobsolete. Hairless line closed caudad, with numerous lines of cilia proximad of it, running all the way to base. Hind tibial spurs double. Scape coarsely scaly. There may be a white lunula before the tegula on lateral thorax.

From three females in U. S. National Museum, labeled "837. Perth, W. Australia, G. Compere, Collector."

Type: Cat. No. 20675, U. S. Nat. Mus., a specimen on a tag plus a slide with head, fore wing, antennæ, and a hind tibia. Cotype: In the Queensland Museum, a female on a tag.

XENANUSIA, new genus

In my table of genera runs to *Epanusia* Girault but differs markedly in the venation, the marginal vein linear, the stigmal distinctly as long as it, the postmarginal shorter, about half the length of the stigmal. Second spur of hind tibiæ no longer than and scarcely thicker than the apical fringes. Head longer than wide, lenticular, but the scrobes distinct but not long. The fore wings are marked somewhat like those of *Habrolepis zetterstedtii* Westwood. Ovipositor apparently free.

Xenanusia pulchripennis, new species. Genotype.

Female.—Length 1 mm. Dark metallic purple, the tarsi pallid. Fore wings hyaline but bearing the following conspicuous brown pattern: A midlongitudinal cone, spoke, or path runs from a point one-third the way from apex to apex of venation proximad to the caudal margin which it runs into broadly opposite most of the submarginal vein; in center of this path (which is a little caudad of middle), a very small round hyaline spot; from the cephalic, distal, and caudal edges of it, six rays or spokes to the margin, all of tolerable length, the first at the venation, short, curved, thickened toward apex and embracing the stigmal and postmarginal veins, the second next longest, more uniform in width, midway between 1 and 3; 3 longest and thickest, at the distocephalic apex; 4 at the distocaudal apex; 5 and 6 shortest, the reciprocates of 2 and 1 respectively; the round dot is between the bases of arms 2 and 5. Arms 1–3 are cephalic; 4–6 caudal. Thus, there is a broad hyaline path from arm 1 proximad to base along the venation; of the hyaline areas blocked off by the arms, that between 1 and 2 is largest, those between 4 and 5 and 6 and the base of the central path at caudal margin, smallest but both distinctly larger than the central spot near the end of the path. Body densely scaly. Axillæ slightly separated. Frons broad. Face inflexed. Flagellum gradually narrowing, the funicle joints decreasing in size distad; pedicel very small. Club ovate.

Ten females, "1038—Swan River, West Australia. G. Compere."

Type: Cat. No. 19153, U. S. Nat. Mus., four females on tags and a slide. Five paratype females in the Queensland Museum.

Xenanusia gigantea, new species.

Female.—Length, 2.15 mm. Dark metallic purple, the longer than wide head orange yellow except ventrad of the scrobes. Tips of the tibiæ and the tarsi yellow; distal tarsal joint dusky. Fore wings hyaline, with a broad fuscous band across it from the bend of the submarginal vein to apex of the

stigmal, the proximal margin of this band straight, its distal margin beveled off to the apex of the stigmal vein. Venation fuscous, the marginal vein about eight times longer than wide, the stigmal somewhat longer, long and slender, the post-marginal barely developed. Oblique hairless line closed caudad, not reaching by far the proximal margin of the fuscous cross-stripe which is coterminous with the discal ciliation. Club not much longer than wide, hive-shaped, narrower than the funicle which narrows distad; funicle, largest (longer down one side than the other), much wider than long, 6 over four times wider than long, shortest; pedicel very minute. Scape greatly dilated. Hind tibial spur single. Frons moderate. Cheeks shorter than the eyes. Scrobes not joined above but distinct. Head lenticular, longer than wide. Club one-third the length of the flat funicle. On the fore wing a narrow marginal naked space along the distal margin of the fuscous marking. Scutellum more densely, finely scaly than the scutum. Axillæ separated by a very short carina. Scutum with tolerably dense short pubescence.

From one female on a tag in the U. S. National Museum, labeled "*Dactylopius*. Adelaide, S. A., 16," but mounted with what appears to be a dipterous puparium upon which it is parasitic. From Arthur M. Lea.

Type: Cat. No. 20884, U. S. Nat. Mus., the above specimen and a slide.

NEORHOPUS, new genus

Female.—Differs from *Rhopus* in having the mandibles with three small, acute teeth, the marginal cilia of the fore wing absent and in the venation. Marginal vein somewhat longer than wide, subequal to the postmarginal, the stigmal somewhat longer. Differs from *Psylledontus* Crawford in having the postmarginal vein, in being nonmetallic and having the body longer as in *Rhopus*. Ovipositor inserted somewhat distad of the middle of the abdomen, the latter conical, somewhat longer than the rest of the body. Thorax with a phragma. Axillæ narrowly joined. Caudal femur compressed, rather large. Head round, the face inflexed. Frons broad. Cheeks shorter

than the eyes. Middle tibial spur not very long, rather slender. Caudal tibial spurs single. Costal cell very narrow. Ovipositor free.

Neorhopus australicus, new species. Genotype.

Female.—Length, 0.75 mm. Brown, the wings subhyaline, the venation dusky yellow, the antennæ darker brown, the fore wing embrowned along just under the marginal and stigmal veins. Tarsi and tips of caudal tibiæ rather broadly pallid. Discal ciliation of the fore wing uniformly rather dense but very short. Funicles 1–3 ring-like, subequal, 4 larger, 5 largest, a little wider than long, 4 wider than 3. Pedicel stout, somewhat longer than wide, distinctly longer than funicle 5. Club somewhat longer than the scape.

From one female on a slide labeled: “2013. *Sphærococcus obscuratus* Mask. *Eucalyptus* sp. Parramatta, N. S. W. Sep. 22, 1899. A. Koebele.”

Type: Cat. No. 20885, U. S. Nat. Mus., the above specimen.

Neorhopus australicus aureus, new variety.

Female.—Like the preceding but golden yellow. A female on the same slide.

Type: Cat. No. 20886, U. S. Nat. Mus., the described specimen.

NEABROLEPOIDEUS, new genus

Female.—In my table to the Australian Ectromini runs to *Habrolepoidea* Howard but differs in having the marginal vein linear, five times the length of the short stigmal, the post-marginal distinct but very short. Also, the body is more robust, the ovipositor distinctly extruded for nearly a half the length of the depressed abdomen, the flagellum is not clavate as in the named genus but filiform, the club wider than the funicle; also the frons is narrow (moderate in the other) subprominent, the vertex not flat, the face inflexed. Flagellum short and clavate in the named genus, here the funicle joints all longer than wide. Mandibles with the broadly truncate second tooth with its apical margin concaved. Hind tibial spurs double, unequal. Axillæ with a fine carina between

them and cheeks a little shorter than the eyes. Scrobes forming a triangle. Scutellum rounded at apex. Hypopygium nearly reaching apex. *Habrolepoidea* bears tridentate mandibles.

Neabrolepoideus bioculatus, new species. Genotype.

Female.—Length, 1.60 mm., excluding the ovipositor. Purplish black; cephalic tarsi brown; apex of ovipositor valves whitish; other tarsi, apex of middle and hind tibiæ narrowly, base of middle and caudal tibiæ rather broadly (not any of the knees), silvery white. Distal joint of middle tarsi and distal two of caudal tarsi, purplish. Middle tibial spur white. Fore wings embrowned slightly at base and from the bend of the submarginal vein nearly to apex, the brown broken by two large oval, opposite marginal spots (one at each margin), the cephalic somewhat larger and at apex of the brown venation. Pedicel and funicle joints subequal, each somewhat over a half longer than wide. Head and thorax densely scaly and with not dense but distinct silvery pubescence. Club not quite half the length of the funicle.

From three females in the U. S. National Museum "987. Perth, W. Austr. G. Compere."

Type: Cat. No. 20890, U. S. Nat. Mus., two females on tags and a slide.

Bavanusia margiscutellum, new species.

Female.—Length, 1.10 mm. Dull golden yellow, the fore wings embrowned from the base of the hairless line to apex; legs and antennæ black (first and second knees broadly, tips of middle tibiæ broadly, middle tarsi and proximal four tarsal joints of hind tarsi, white). Scutum and the interior of scutellum (proximal and distal margins but narrowly yellow), propodeum and abdomen dark metallic blue. Club obliquely truncate from base of joint 3, subequal in length to the funicle. Cheeks below the eyes and sides and venter of the thorax blue. Pedicel a little longer than wide. Funicle 6 largest but much wider than long. Body finely scaly. Axillæ with a short carina between them. Middle femur white along prox-

imal two-thirds and at distal fifth. Mesopleurum scaly. Hind tibial spurs not seen. Marginal vein black, over twice the length of the stigmal. Except for the club about as in the genotype. Ovipositor free.

From one female on a slide in U. S. National Museum, labeled "1149. *Mytilaspis* (*Chionaspis*) *casurinae* Mask. Brisbane, Queensland, January 2, 1900. On *Casuarina*. A. Koebele."

Type: Cat. No. 20891, U. S. Nat. Mus., the above specimen.

B. parsimilis Girault is the same as the genotype, a variant.

TACHINACPHAGUS, new genus

Female.—In my table to the earth's encyrtine genera running to *Parasyrpophagus* Girault but differs in being much more robust, the head is not strongly inflexed but only moderately so, from cephalic aspect a little wider than long, the frons broad. Marginal vein three and a half times longer than wide, subequal to the postmarginal. Thorax convex, the scutum and scutellum large, the axillæ united and with a short carina between them. Abdomen flat, as large as the thorax. One short ring-joint. Ovipositor just tipping the abdomen.

Tachinacphagus australiensis, new species. Genotype.

Female.—Length, 2. mm. Very dark metallic green, the wings hyaline, the venation subfuscous, the legs, scape, pleura and venter of thorax, reddish yellow; propodeum and axillæ slightly yellowish. Scape somewhat compressed, the pedicel subelongate, twice longer than wide at apex, subequal to funicle, which widens distad and is much the longest, the other joints short, 2 a little longer than wide, 5 and 6 a little wider than long, cupshaped; funicles 2 and 3 oval. Club no wider than the funicle which is submoniliform; club 3 longest, conic, as long as wide, 1 and 2 wider than long, distinctly so; club not half the length of the funicle, shorter than the scape, not obliquely truncate, the joints well separated. Mandibles moderately long, the first two teeth subequal, subobtuse, the third small, not half the size of the others which are of good size

but not especially long. Thorax very finely scaly reticulate, the scutum with obscure, scattered setigerous punctures, the head similarly sculptured and with scattered more distinct punctures. Scutellum like the scutum. Clothing of the scutum rather long yet soft, not dense nor erect. Scutellum glabrous on distal half. Lower face and cheeks with a few punctures. Hind tibial spurs double, unequal. The male is smaller but about the same, its antenna filiform, the club solid, no longer than funicle 7, the pedicel globular, funicle 1 thrice longer than wide, the following (6) joints of the funicle subequal, each over a half longer than wide. Flagellum uniformly clothed with rather short, soft hairs. A line of large punctures along the eyes on vertex as in the female.

From one male, eight females in U. S. National Museum, labeled "*Tachinaephagus zealandicus* Ashmead. Type No. 12721. Parasite from pupa of the larger locust parasite, Queanbeyan N. S. W. Lea. 2.92."

Types: Cat. No. 20892, U. S. Nat. Mus., five females on a card and a slide with male and female appendages. Cotypes in the Queensland Museum, one male, three females.

ZAOMOMMOENCYRTUS, new genus

Female.—In my table to the encyrtine genera runs to *Zaomencyrtus* Girault but like the species referred to *Anagyrus* except that the apical margin of the second tooth of the mandibles is concaved (so that the mandibles appear tridentate). The club is divided obliquely through the middle and is ovate. Frons moderately broad, subprominent. Habitus of *Epidinocarsis*.

Zaomommoencyrtus poeta, new species. Genotype.

Female.—Length, 1.50 mm. Stout, flattened. Lemon yellow, the vertex, scutum (except the lateral and caudal margins narrowly) and scutellum (except the same margins), deep orange yellow. Wings hyaline, the venation lemon. Face of pronotum, a small triangular sclerite just off the caudolateral corner of the scutum, propodeum across the meson out nearly as far as the spiracle and the bulla and the ventral half of the

distal half of the scape, black. Dorsum of abdomen more or less dusky along the meson. Dilation of scape great. Pedicel a little wider than long, larger than funicle 1; all funicle joints wider than long, 6 largest, larger than the pedicel; club about half the length of the funicle. Vertex densely scaly punctuate, the thorax and abdomen densely scaly. Axillæ a little separated. Pubescence very short, not dense. Scutellum long, shield-shaped. Abdomen depressed, circular, shorter than the thorax. Wings ample, the hairless line closed caudad obscurely by a paired line of cilia, with dense ciliation proximad of it. Venation not reaching the costa until the middle of the postmarginal vein, the marginal vein punctiform, the stigmal long and slender, over twice the length of the distinct postmarginal.

Described from a single female in the U. S. National Museum, reared from a supposed psyllid larva from under the bark of *Eucalyptus* (A. Koebele). Locality very probably Sydney.

Type: Cat. No. 20893, U. S. Nat. Mus., the female on a tag, the head and a fore wing on a slide.

AMISCOGASTER, new genus

Female.—Belongs to the Halticopterini and has the habitus of a small species of *Eurytoma* though not like *Eurytoma* in structure. Head (cephalic aspect) very slightly wider than long, the eyes bulging, hairy, ovate, the antennæ inserted between the middle of the face and the ventral ends of the eyes, filiform, 13-jointed with one ring-joint, the club 3-jointed, simple, the scape very short, a little over twice longer than wide (body, the bulla short), a little longer than the pedicel. Mandibles with two acute teeth and an inner truncation. Pronotum distinct, not very transverse linear. Parapsidal furrows punctate, not quite reaching the mesal edge of the advanced axillæ, the scutum with a distal tongue-like mesal prolongation between the large, obtuse axillæ. Scutellum convex, simple. Propodeum large, somewhat convexed, with a fine median ruga (several rugæ running irregularly from it to

make fine rugulosity), an oval spiracle of moderate size and cephalad with a foveate sulcus from it (the lateral margin of the sulcus a ruga-carina); no true lateral carina nor distinct neck. Abdomen narrower than the thorax, conic-ovate, pointed, the hypopygium prominent distad and covering the curved-up naked ovipositor; base of abdomen rimmed, the petiole transverse. Segment 2 of abdomen occupying somewhat over half the surface, gently incised at meson caudad, the others short but unequal, 3 longer than the others. Marginal vein linear but somewhat shorter than the submarginal, the stigmal short, with a distinct curved neck, the postmarginal slightly longer than it and thickened a little. Legs simple, the hind coxæ long. A peculiar chalcid.

Amiscogaster ruskini, new species. Genotype.

Female.—Length, 1.05 mm. Shining black, the head and thorax hispid hairy but not densely, the abdomen glabrous; scape, pedicel above and the legs (except proximal half of hind femur and the base of the hind coxa) whitish. Wings hyaline. Funicles 1–2 subequal, each a third longer than wide, 7 a little shorter. Fore wings with dense discal cilia.

From two females in the U. S. National Museum reared from a species of *Icerya*, February, 1901 (G. Compere).

Habitat: Columba, New South Wales, and as above.

Types: Cat. No. 12729, U. S. Nat. Mus., the females on tags, a head, fore wing and caudal tibia on a slide. This is the *Parasaphes iceryæ* Ashmead MS.

Dibrachys australia, new species.

Female.—Length, 0.70 mm. Dark, metallic green, the wings subhyaline, the scape, legs (except the coxæ and the femora above more or less) and the venation brownish. Body scaly-punctuate, finely so, the abdomen subglabrous. Clypeus produced, acutely incised at meson of apex and so divided into two equal, truncate, subquadrate teeth, divided at apex by a slit. Propodeum tricarinate, its neck short, no *spiracular sulcus*, the spiracle oblique, small, elliptical, a short distance from the margin. Segment 2 of the depressed abdomen long-

est, somewhat longer than 4, occupying not more than a fifth of the surface, its caudal margin entire, straight. Scutellum with but the faintest sign of a cross-suture near apex, the parapsidal furrows two-thirds complete from cephalad. Pubescence very sparse. Mandibles 4-dentate. Antennæ inserted much below the middle of the face, slightly below the ventral ends of the eyes, 13-jointed, the scape slender, the pedicel large, the rest slenderly clavate. Scrobes not distinct *per se* but lying in a very long-triangular, obtuse impression. Pedicel over twice longer than wide at apex, as long as the next four joints combined or longer; ring-joints grading into the funicle joints, the first shortest and narrowest, the second twice its size, still very transverse, half the length of funicle 1 and slightly narrower; funicle joints all wider than long, increasing gradually in length distad, 3 twice wider than long, 6 a little wider than long. Club ovate, its first joint quadrate and largest of the flagellum except the pedicel. No distinct terminal nipple. Postmarginal and stigmal veins of moderate length, subequal, each over half the length of the marginal, the latter less than half the length of the submarginal.

Three females in the collections of the U. S. Department of Agriculture and reared from the larvæ of *Carpocapsa pomonella* (Linnæus), November 1 or January 11, 1909 ("11.1.09" Stokes).

Habitat: Glen Innes, New South Wales, and as above.

Types: Cat. No. 20466, U. S. Nat. Mus., two females on tags, a head, fore wing and pair of caudal legs on a slide. *Co-type*: In the Queensland Museum, a female on a tag.

Very similar to the North American (*Arthrolytus*) *Di-brachys pimplæ* (Ashmead) but the antennæ are lower on the face while the clypeus is incised.

***Sphegipterosema dubia*, new species.**

Female.—Length, 1.70 mm. Differs from the genotype in having no cross-suture on the scutellum, segments 3 and 4 of the abdomen are entire, 2 longest, occupying a fourth of the surface and with a small sinus caudad at meson, 3 not quite half the length of 2, more or less equal to 4; the coxæ are

concolorous, the rest of the legs and scape except at apex, reddish brown. Spiracle of propodeum reniform, the spiracular sulcus present, broken. Propodeum with a large neck, the abdominal petiole over twice longer than wide, subglabrous, delicately carinate along its lateral margin. Clypeus slightly concaved at apex. Tips of the tibiæ and the tarsi, pale. Abdomen conic-ovate, rounded above, much keeled beneath, acute at apex, there shortly acuminate. Postmarginal vein elongate, barely shorter than the marginal, the stigmal over a third shorter than the first yet very slender. Funicle 1 a half longer than wide, distinctly longer than the pedicel, 6 a little longer than wide. Antennæ inserted a little below the middle of the face. Like the genotype otherwise.

One female in the U. S. National Museum (A. Koebele).

Habitat: Australia.

Type: Cat. No. 20469, U. S. Nat. Mus., the female on a tag, the head, caudal legs, and a fore wing on a slide.

Perilampoides similis, new species.

Female.—Like *flavithorax* but the metathorax, upper occiput, middle of mesopleurum and proximal half of caudal coxa in the lateral aspect, also black, while the cross-stripe of the fore wing is reduced to an ovate spot appended from the thickened part of the submarginal vein and extending halfway across the wing. Abdomen all black. The postmarginal vein is somewhat longer than the marginal, the latter equal to the stigmal. Scutellum without obscure spots. Ring-joint quadrate, narrower than funicle 1, the latter, 3 and 4 subequal, twice wider than long, 2 and 5 subequal, somewhat wider than long. Like the description of the named species otherwise.

Four females in the U. S. National Museum (G. Compere).

Habitat: Swan River, West Australia.

Type: Cat. No. 20768, U. S. Nat. Mus., the females on tags and a slide bearing caudal tibia, a fore wing, and a head.

Tomocera australica, new species.

Female.—A half smaller than the genotype and differs notably in that the scattered dorsal thoracic pubescence is not long and conspicuous, but very short and differently disposed.

and the abdomen is entirely honey-yellow except just along the base narrowly and at apex above more broadly. Head and legs entirely honey-yellow except the clypeal area, which is green. Infuscation of the fore wing very light. Hind coxa with a fringe of "cobwebby" white pubescence. Funicle joints all somewhat wider than long, 5 largest. Mandibles tridentate. Hind tibial spur single. Abdomen with a wide petiole which is hidden by the neck of the propodeum.

From two females in the U. S. National Museum (G. Compare).

Habitat.—Swan River, West Australia.

Types.—Cat. No. 20470, U. S. Nat. Mus.; the female on tags, a head and three caudal tibiæ on a slide.

In the genus, the occipital margin is acute, the triangular head lenticular; the large pronotum (over half the length of the scutum) is subequal to the propodeum which is transverse-quadrangle and with a prominent neck which resembles a petiole.

***Stomatoceras carlylei*, new species.**

Female.—Length, 5 mm. In the table of Australian species runs to *longicornis*, but differs from that species as follows: Black, the legs bright red and the apex of the tegulæ; the fore wings are hyaline except for a transverse-rectangular fuscous area from the marginal vein; funicle 2 is only two-thirds longer than wide, 1 subquadrangle, shorter than the pedicel, 7 somewhat longer than wide. Segments of abdomen after 2 (except broadly along the meson of 3) scaly and with several rows of large punctures which are setigerous, 6 rugoso-punctate. Postmarginal vein somewhat longer than the marginal. Mesopleurum cross-striate. Otherwise as in *longicornis*.

One female on a tag in the U. S. National Museum, Toowoomba, Queensland (A. Koebele).

Type.—Cat. No. 20766, U. S. Nat. Mus., the above specimen and a slide bearing an antenna.

***Stomatoceras magnidens*, new species.**

Male.—Length, 4.50 mm. Black, the following parts red: Tegulæ, apex and bulla of scape, pedicel, funicles 1-3, base of

funicle 4, base rather broadly and apex narrowly of caudal femur and rest of the legs except caudal coxæ. Fore wings smoky from base of marginal vein to apex, but with a subquadrate hyaline area (distinct, large) from the cephalic margin just distad of the stigmal vein. Postmarginal vein slightly longer than the marginal. Characterized by the bidentate scutellum, the two teeth longer than usual and very distinct. Funicle 2 somewhat longer than wide, subequal to the pedicel, 1 somewhat shorter, longer than wide. A pair of distinct but short ridges at base of abdomen at meson, segment 2 polished except distad in the dorsolateral aspect; others coarsely scaly (at first not mesad) and with the large setigerous punctures. Hind femur punctulate, the fine teeth below along about distal three-fourths.

One male, Toowoomba, Queensland (A. Koebele).

Type.—Cat. No. 20767, U. S. Nat. Mus.; the male on a tag, a pair of wings and an antenna on a slide.

Stomatoceras rousseaui, new species.

Female.—Length, 4 mm. In the analysis of species runs to *nigriscapus*, but differs from its description as follows: The caudal legs are red except narrowly the ventrolateral edges of the tibiæ; the middle coxæ, the middle femur (except above at distal third more or less obscurely), and rest of middle legs except the tibiæ (except at each end) and the trochanters, are red; and the front legs are red except the distal third of the femur and the proximal two-thirds of the tibia; segments 1 and 2 of abdomen, sides and venter of 3, and venter of 4 and 5, red. Tegulæ red. Fore wings infuscated similarly, but the rectangular area from the marginal vein runs faintly across, widening caudad, and is more or less obscurely connected with the distal area to form a loop from the marginal vein around to cephalic margin distad of the postmarginal vein; the latter elongate, somewhat longer than the marginal, four times the length of the stigmal. Abdomen similarly sculptured. Scutellum distinctly bidentate. Funicle 1 is somewhat longer and 8 somewhat shorter than in *nigriscapus*. Teeth on hind femur below along distal two-thirds.

One female, minutien-mounted, Brisbane, Queensland, October 6, 1914 (H. Hacker).

Type.—In the Queensland Museum, Brisbane, the above female with a slide bearing a hind leg, a fore wing, and an antenna.

Stomatoceroïdes bidens, new species.

Female.—Length, 4 mm. Like *rubripes* except that the first two pairs of legs are black except the tarsi, knees (more broadly red ventrad) and tips of tibiæ (more broadly ventrad), the tegulæ red at apex only; also the sides and venter of segments 2 and 3 of abdomen are red. Otherwise the same. Scutellum distinctly bidentate. The stain against the marginal vein is, perhaps, larger; only a trace of a distal stain (central and opposite the apex of the postmarginal vein). Teeth on hind femur along distal two-thirds. Funicle 1 over twice longer than wide.

One female, minutien-mounted, Brisbane, Queensland, October 27, 1914 (H. Hacker).

Type.—In the Queensland Museum, Brisbane, the above female and a fore wing and antenna on a slide.

Eurytoma casuarinae, new species.

Female.—Length, 2.75 mm. In my table of species runs to *nelsonia*, but the abdomen is blood red, the mesal black stripe along proximal half (or to middle of segment 5), the caudal coxæ are black at proximal half above, the flagellum is black, the scape is red except above at apex, segment 5 of the abdomen is shorter (longer caudo-cephalad than proximo-distad). Median channel of propodeum consisting of a double row of coarse foveæ; postmarginal and stigmal veins short, subequal. Abdomen glabrous.

The male differs in that the petiole is over four times longer than wide and the abdomen all black except a large round area laterad (nearly all the middle of the lateral aspect except the borders broadly). The distal half of the scape above is black and ventrad distad of middle is a convexity. Funicle 1 about two-thirds longer than wide; club 2-jointed in both sexes.

Described from a single pair reared from galls on *Casuarina*. Stradbroke Island (Brisbane), Queensland, October, 1915 (H. Hacker).

Types.—In the Queensland Museum, the pair on tags and the flagellum of each sex and female hind leg on a slide.

Aceratoneuromyia australia, new species.

Female.—Length, 0.90 mm. Black, the wings hyaline, the knees, tibiæ and tarsi honey-yellow. Body scaly, no pubescence except for long setæ scattered over the pronotum (a few elsewhere). Marginal fringes of the fore wing not extremely short, somewhat longer than usual. Funicle joints wider than long, 1 largest, somewhat wider than long, 2 and 3 still wider (but shorter); club short-ovate, wider than the funicle, its joints much wider than long, 3 with a spicule at apex. Pedicel a little longer than funicle 1. Stigmal vein of moderate length. Mandibles bidentate, the second tooth obtuse.

Funicle joints in male each somewhat longer than wide, but 1 is subquadrate, a little shorter than the pedicel.

From one male, four females, associated with the fruit fly (*S. P. Lounsbury*),

Habitat.—West Australia.

Type.—Cat. No. 20597, U. S. Nat. Mus.; the specimens on tags, male and female heads and female caudal tibia on a slide.

Aceratoneuromyia, new genus.

Female.—Head a little longer than wide, shaped somewhat as in *Spalangia*, the antennæ inserted much below the middle of the face, a very little distance below the ventral ends of the eyes, 11-jointed with three ring-joints, the second two of which are very short and thin. Suctum and scutellum simple. Propodeum with a long median carina only, the lateral and caudal margins narrowly carinated, the spiracle moderately large, round, cephalad. Petiole transverse-quadrate, the abdomen shorter than the thorax, its dorsum sunken. Hind tibial spur single.

Male.—Similar, but the scape is swollen, the funicle 4-jointed, the club 3-jointed.

Genotype.—*A. australia* Girault, just described.

Encyrtcephalus simplicipes Ashmead. Genotype.

Pseudorileya Girault is a synonym. The genotype (*simplicipes*) differs from *albiclava* in having the cephalic margin of the propodeum broadly black between the spiracles, the funicle is black or nearly, there is only a round hyaline dot in the large infuscation against the stigmal vein, the abdomen dorsad is depressed, the caudal margins of the segments straight, segment 2 largest, occupying nearly a third of the surface. Scutellum distad less punctate only, the sculpture not sharply demarked. From the type in the U. S. National Museum, a female.

SYNONYMS

Omphalomorpha Girault is *Euderus* Haliday; there are two ring joints. *Aplastomorpha pratti* Crawford equals *australensis* Girault equals *Meraphorus vandinei* Tucker equals *Neocatolaccus vandinei* (Tucker); cosmopolitan.

Propachytomoides, new genus.

Female.—Differs from *Podagrionella* in bearing a 2-jointed antennal club, the antennæ 12-jointed with one ring-joint

Propachytomoides semialbiclavus, new species. Female.
Genotype.

Length, 2 mm., excluding the ovipositor, which is about as long as the subglobular abdomen.

Dark metallic purple, the scape except at apex, middle knees, tips of middle tibiæ, and petiole of the abdomen, reddish brown. Basal joint of hinder two pairs of tarsi whitish, also about the distal half of the club (joint 2 except at base). Hind femur with ten teeth beneath, 1, 4, 6, 8 and 9 largest, 2 and 3 smallest, but not much smaller than 10. Fore wings with a very conspicuous, solid purple stripe across from nearly the distal two-thirds of the marginal vein, the stripe incomplete for a quarter of the way from margin to margin. Postmarginal vein somewhat over twice the length of the very short stigmal, the venation black. Genal suture delicate, the head, thorax, and hind femur finely scaly. Antennæ inserted in the middle of the face, like those of *Podagrion* in shape.

Petiole twice longer than wide. Scutellum distad of its cross-suture, glabrous. Propodeum with delicate, longitudinal rugæ except broadly laterad, one of these rugæ median and which meets at basal third a broad semi-circular carina; there is also a carina from caudad on each side of the petiole, running nearly to the semi-circular carina. Postscutellum glabrous, the suture between it and the scutellum punctate. Funicle 1 longest, a half longer than wide, 2 and 3 a little shorter, subequal to the pedicel, 6 quadrate, 7 a little wider than long. Ring-joint normal. Club nearly as long as the three preceding joints united. Abdomen showing a very delicate scaliness. Cephalic tibiæ more or less reddish. Ovipositor reddish (the valves absent in this specimen).

A female, forest uplands (Hawkesbury River), November 3, 1914.

Habitat.—Brooklyn, New South Wales.

Type.—In the Queensland Museum, Brisbane, the specimen on a tag, an antenna on a slide.

There is a faint dusky stripe across the fore wing from about the middle of the submarginal vein. Petiole with longitudinal carinæ. Propodeum, laterad of the spiracle, with a sharply gouged-out narrow sulcus (dorso-laterad).

Dinoura eucalypti, new species.

Female.—Very similar to *cyanea*, with the type of which I compare it, but differing as follows: Somewhat more robust; a little more of the abdomen is red; the caudal femora are entirely red except the proximal end rather broadly and slightly at apex. Distal funicle joint somewhat longer than wide, the basal over twice longer than wide; apical joint of club red. "Propeller blades" of ovipositor valves larger than in *cyanea*.

Two females reared from a chalcid in brachyscalid galls on *Eucalyptus* (A. Koebele).

Habitat.—Sydney, New South Wales.

Types.—Cat. No. 20887, U. S. Nat. Mus.; two females on tags, the flagella on a card.

Parachrysomalla secunda, new species.

Female.—Agrees with the description of the genotype, but somewhat smaller, the fore wings are lightly dusky from the band of the submarginal vein distad to apex, the scape is dusky dorsad, the pedicel black, the ring-joint pale and a little longer than wide, funicle 1 is twice longer than wide, 2 a half longer than wide, 3 somewhat shorter than 2, 4 nearly quadrate. Club subequal to funicle 1 in length. The scutellum differs in bearing a carina across a short distance before the apex, while the pair of median carinæ on the postscutellum are very delicate, more or less obscure. Only the cephalic knees are yellow, the other femora black to their tips. Abdomen somewhat compressed, as long as the rest of the body.

The male is similar in color, the abdomen depressed (antennæ missing).

One male, four females, on two cards in the U. S. National Museum, marked "91. From turpentine galls."

Habitat.—Flemington, New South Wales (and as above).

Types.—Cat. No. 12718, U. S. Nat. Mus.; as above with a slide bearing female heads, caudal legs, and a fore wing.

This is the *Cecidoxenus nigrocyanus* Ashmead MS. of the Miscogasteridæ. It is a perilampid.

Thaumasura westwoodi, new species.

Female.—Length, 8 mm., excluding the ovipositor, which is extruded for a length slightly over twice that of the body, a third or more longer than the stylus above it.

Much like *terebrator*, but the antennæ are entirely black except joints 4 and 5 of the funicle, the femora, tibiæ, and tarsi red except a large oval spot above laterad near dorsal margin at distal half of cephalic and caudal femora (on the latter a much smaller area on the mesal aspect), and the caudal tibiæ just below the knees. Also the antennæ differ from those figured for the genotype in that the pedicel in the latter is barely a half the length of funicle 2, while here it is plainly two-thirds the length of funicle 2; also the club joint is larger than the joint preceding it, shorter in *terebrator*. A triangular

fuscous patch from the apex of the stigmal vein. Plate at apex of scutellum entire. Funicle 1 distinctly wider than long, 3 nearly thrice longer than wide.

A female in the U. S. National Museum formerly identified by Ashmead as *terebrator* and marked "27."

Habitat.—South Australia.

Type.—Cat. No. 20894, U. S. Nat. Mus.; the specimen on a card, an antenna on a slide.

Aressida Cameron and *Agamerionella* Girault are synonyms of *Thaumasura*.

The following new names are proposed: For *Paranusia* Girault the name *Ananusia*; for *Eurytoma acaciae* Girault the new name *E. australia*.

The following genera are synonyms of *Sympiesis*: *Notanisomorphella* Girault, *Notanisomorphomyia* Girault, and *Pseudopheliminus* Girault. *Asympiesiella superbus* Girault is a *Sympiesis*. The genus *Paromphale* Girault is correctly described and placed, but is closely allied with *Thripoctenus* Crawford, which is incorrectly described and is not a tetrastichine. But the former bears dentate mandibles, two ring-joints, and the antenna is clothed with long hairs.

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